

**B. PHARM.**  
**FIFTH SEMESTER**  
**MEDICINAL CHEMISTRY-II**  
**BP501T [REPEAT]**  
[USE OMR FOR OBJECTIVE PART]

Duration : 3 hrs.

Full Marks : 75

Time : 30 min.

Marks : 20

*Choose the correct answer from the following:*

$1 \times 20 = 20$

**( PART-A: Objective )**

1. Voglibose is a
  - a. Sulfonyl Ureas
  - b. Glucosidase Inhibitors
  - c. Biguanide
  - d. Meglitinide
2. Statins act by
  - a. Inhibition of HMG CoA Reductase
  - b. Inhibition of Platelet Aggregation
  - c. Inhibition of Neovascularization
  - d. Increased Fibrinolysis
3. Which enzyme converts angiotensinogen to angiotensin-I?
  - a. Renin
  - b. ACE
  - c. ACE inhibitor
  - d. None
4. Quinidine depresses the entry of  $\text{Na}^+$  in cell and decreases the diastolic depolarization and thus decreases the
  - a. Excitability
  - b. Automaticity
  - c. Atherosclerosis
  - d. Contractility
5.  $T_3$  stands for
  - a. Triiodothyronine
  - b. Triiodothyroxine
  - c. Thyroxine
  - d. Thyronine
6. Amongst given which is a local anesthetic ---
  - a. Halothan
  - b. Spiranolactone
  - c. Lignocaine
  - d. None of the above
7. Which of the following belongs to Dihydropyridine CCB's
  - a. Nicorandil
  - b. Nifedepine
  - c. Amloride
  - d. Amiodarone
8. One of the following drug act by sequestering the bile acid in GIT
  - a. Gemfibrosil
  - b. Coronary stent
  - c. Colestipol
  - d. Probucol
9. The drug which is used as diuretics and hair care product is
  - a. Mannitol
  - b. Minoxidil
  - c. Mephalan
  - d. Diazoxide

10. Which of the following action is performed by Histamine?
- a. Vasodilation
  - b. Increased permeability
  - c. Dolor
  - d. All of these
11. The  $\text{Na}^+ - \text{Cl}^-$  symport in the early distal convoluted tubule of the kidney is inhibited by
- a. Thiazides
  - b. Metolazone
  - c. Xipamide
  - d. All of the above
12. Which antineoplastic agent is folic acid analogue
- a. Methotrexate
  - b. Mercaptopurine
  - c. Cisplatin
  - d. Mechlorethamine
13. One of these local anaesthetic drug is also used in arrhythmia
- a. Procaine
  - b. Cinchocaine
  - c. Lignocaine
  - d. Amethocaine
14. Which is a non selective alpha and beta blocker \_\_\_\_\_
- a. propranolol
  - b. prazosin
  - c. labetalol
  - d. phenoxybezamine
15. Which of the following is an Aldosterone Antagonist
- a. Bumetanide
  - b. Amiloride
  - c. Spiranolactone
  - d. b and c
16. Ethacrynic acid is a
- a. Loop Diuretics
  - b. High Efficacy Diuretics
  - c. A and b
  - d. Carbonic Anhydrase Inhibitors
17. Which of the following is not the function of an oral pill?
- a. Inhibit ovulation
  - b. Inhibit heart development in the fetus
  - c. Inhibit implantation
  - d. Inhibit entry of sperms
18. Corpus luteum secretes \_\_\_\_\_
- a. Progesterone
  - b. Estrogen
  - c. Lutenizing hormone
  - d. Follicle stimulating hormone
19. Identify the correct statement regarding Warfarin
- a. Warfarin specifically inhibits epoxide reductase enzyme
  - b. a, c and d
  - c. Warfarin is metabolized by the microsomal P450 enzyme
  - d. Warfarin is a vitamin K antagonist
20. Which of the following hormonal dosage is given as an oral administration to prevent pregnancy?
- a. Relaxin
  - b. Progesterone
  - c. Estradiol
  - d. Epinephrine

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## **PART-B: Descriptive**

Time : 2 hrs. 30 min.

Marks : 35

*[Answer any seven (7) questions]*

1. What are anti hyperlipidemic agents? Explain the mechanism of action of Statin. Write the structure and uses of Clofibrate. 1+2+2 =5
2. What are anticoagulants? Give the mechanism of action, synthesis and uses of Warfarin 1+4=5
3. Define angina pectoris? Write the MOA of Nitrates? Write the Synthesis and uses of nitroglycerine. 1+2+2 =5
4. What are potassium sparing diuretics? Outline the synthesis and medicinal uses Chlorthiazide. 2+3=5
5. a. Write mechanism of action of gastric proton pump inhibitors. 5  
b. Write a note on synthesis of thyroid hormone and anti thyroid drugs.
6. Write the Definition and types of Diabetes Mellitus? Classify Anti diabetic agents with examples. 2+3=5
7. Write the structure and specific uses of 1+4=5
  - a. Furosemide,
  - b. Cimetidine
  - c. Hydralazine
  - d. Captopril
  - e. Clonidine
8. Write the Synthesis of Benzocaine and Acetazolamide and write their uses. 1+4=5
9. Define Anti arrhythmic agent. Classify them with suitable example. Write the structure and uses of Procainamide. 1+4=5

**[ PART-C : Long type questions ]**

*[ Answer any two (2) questions ]*

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|---|----------------|
| 1. What are anti neoplastic agents. Classify them with example? Discuss the mechanism of action of Alkylating agents. Outline the synthesis of Meclorethamine | 1+3+3+<br>3=10 |
| 2. Define and classify Local Anaesthetic and write the MOA of it. Write the SAR of Benzoic Acid Derivative.   | 1+2+2+<br>5=10 |
| 3. Define and Classify antihypertensive agents? Explain the MOA of ACE Inhibitors. Write the synthesis of Methyl Dopa.  | 1+5+2+<br>2=10 |

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